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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/520,687	03/07/2000	John Dung-Quang Ly	2705-401	9101

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EXAMINER

WON, MICHAEL YOUNG

ART UNIT	PAPER NUMBER
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2155

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/520,687

Applicant(s)

LY, JOHN DUNG-QUANG

Examiner

Michael Y. Won

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 8-10, 12, 13 and 19-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 8-10, 12, 13 and 19-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed December 29, 2006.
2. Claims 1, 10, 12, and 21 have been amended and claims 4, 11, and 24-28 have been cancelled.
3. Claims 1-3, 8-10, 12-13, and 19-22 have been examined and are pending with this action.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

4. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the network device" in line 19 of claim 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claim 21 is rejected under 35 U.S.C. 102(e) as being anticipated by Wookey (US 6,085,244 A).

As per **claim 21**, Wookey teaches a network device that can be coupled to a packet switching network by an interface line to communicate with a technical support center that is also coupled to the packet switching network (see Fig.1 and col.4, lines 13-16: "internet"), the network device comprising:

a hardware subsystem (see col.3, lines 15-18: "hardware");

a software subsystem (see col.3, lines 15-18: "software"); and

means for monitoring the status of the hardware and software subsystems and the interface line (see col.4, lines 31-36: "installed patches and revisions, hardware configuration"), the network device (see col.4, lines 4-10: "monitored system 102") capable of transmitting a first message to the technical support center (see col.4, lines

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4-10: "service center 101") while maintaining normal operation (implicit: see col.2, lines 1-4: "Where computer systems are being used in production... such degradation of system performance is undesirable"; col.3, lines 9-10: "resulting in increased uptime" & lines 17-18: decreased burdens on the monitored system"; and col.15, lines 41-49: "to avoid affecting overall performance"), the first message transmitted in response to the monitoring means detecting a problem with one of the hardware subsystem and the software subsystem (see col.5, lines 8-11: "alerts which may trigger other operations"), the first message transmitted prior to failure of the one of the hardware subsystem and the software subsystem (see col.5, lines 6-8: "attempt to recognize any future problems that may occur"), the first message notifying the technical support center of the problem and indicating the status of the hardware subsystem and the software subsystem (see col.5, lines 6-8: "collected data is post-processed at the service center");

where the means for monitoring includes:

a hardware health status monitor subsystem (see col.4, line 34: "hardware configuration");

a software health status monitor subsystem (see col.4, line 34: "list of installed patches and revisions"); and

a remote diagnostic embedded process subsystem for communicating with the hardware health status monitor subsystem and the software health status monitor subsystem, for collecting status information provided by the software health status monitor subsystem and the hardware health status monitor subsystem, and for

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detecting problems encountered by the hardware and software subsystems (see col.4, lines 31-44);

where the first message is transmitted in response to the remote diagnostic embedded process subsystem detecting an error message from the one of the hardware subsystem and the software subsystem (see col.4, lines 31-36);

where the means for monitoring includes means for detecting at **least one of** a memory capacity of the network device dropping below a first threshold level, a percentage of call failures to or from the network device exceeding a second threshold, a software reload by the network device, a reduced quality of an interface on the network device, a temperature of the network device exceeding a third threshold level, and a failed interface on the network device (see col.13, lines 3-7: "If the size limit on this directory is reached...").

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3, 8-10, 12-13, 19-20, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wookey (US 6,085,244 A) in view of Krishnamurthy et al. (US 6,389,464 B1).

INDEPENDENT:

As per **claim 1**, Wookey teaches a system comprising:

a technical support center (see col.4, lines 4-10: "service center 101");

a packet switching network coupled to the technical support center by a first interface line (see Fig.1 and col.4, lines 13-16: "internet"); and

at least one server (see col.6, lines 30-32: "the master 409 may be a server machine") coupled to the packet switching network by a second interface line;

where the at least one server is configured to communicate network information to the technical support center through the packet switching network (see Fig.1 and col.7, lines 44-49: "The master provides monitor down notification... to the service center");

where the at least one server includes at least one hardware subsystem (see col.3, lines 15-18: "hardware"), at least one software subsystem (see col.3, lines 15-18: "software"), and embedded software operable to collect and analyze status information from the at least one hardware subsystem and the at least one software subsystem to detect a problem with any one of the at least one hardware and software subsystems or the second interface line (see col.4 lines 36-38: "using diagnostic tests and monitoring functions which include "modules" running on the monitored system" and col.6, lines 21-44: "remote monitoring software");

where the status information includes error messages from any one of the at least one hardware and software subsystems or the second interface line (see col.4, lines 31-36: "error messages");

where the at least one server is configured to send, in response to the detection of the problem, a first message to the technical center (see col.4, lines 48-53: "initiated by the monitored system") without interrupting the normal operation of the network device, the first message including the status information (implicit: see col.2, lines 1-4: "Where computer systems are being used in production... such degradation of system performance is undesirable"; col.3, lines 9-10: "resulting in increased uptime" & lines 17-18: decreased burdens on the monitored system"; and col.15, lines 41-49: "to avoid affecting overall performance").

Wookey does not explicitly teach that the server is an access server and that the at least one server is configured to page a user of the access server responsive to the detection of the problem.

Krishnamurthy teach that a server is an access server (see col.4, lines 20-26: "monitoring and control of... network access servers") and that the at least one server is configured to page a user of the access server responsive to the detection of the problem (see abstract: "The site server can deliver device information via facsimile, paging, electronic mail and management traps").

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Wookey in view of Krishnamurthy so that the server is an access server. One would be motivated to do so because Wookey teaches that the network comprises the Internet (see col.4, lines 49-53) and the Internet to one of ordinary skill in the art comprises plurality of systems such as access systems, which inherently comprise access servers.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Wookey in view of Krishnamurthy so that the at least one server is configured to page a user of the access server responsive to the detection of the problem. One would be motivated to do so because Wookey teaches, "other notifications can be sent" (see col.19, lines 3-7).

As per **claim 12**, Wookey teaches a network device that can be coupled to a packet switching network by an interface line to communicate with a technical support center that is also coupled to the packet switching network (see Fig.1 and col.4, lines 13-16: "internet"), the network device comprising:

- a hardware subsystem (see col.3, lines 15-18: "hardware");

- a software subsystem (see col.3, lines 15-18: "software"); and

- means for monitoring the status of the hardware and software subsystems and the interface line (see col.4, lines 31-36: "installed patches and revisions, hardware configuration"), the network device (see col.4, lines 4-10: "monitored system 102") capable of transmitting a first message to the technical support center (see col.4, lines 4-10: "service center 101") while maintaining normal operation (implicit: see col.2, lines 1-4: "Where computer systems are being used in production... such degradation of system performance is undesirable"; col.3, lines 9-10: "resulting in increased uptime" & lines 17-18: decreased burdens on the monitored system"; and col.15, lines 41-49: "to avoid affecting overall performance"), the first message transmitted in response to the monitoring means detecting a problem with one of the hardware subsystem and the

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software subsystem (see col.5, lines 8-11: "alerts which may trigger other operations"), the first message transmitted prior to failure of the one of the hardware subsystem and the software subsystem (see col.5, lines 6-8: "attempt to recognize any future problems that may occur"), the first message notifying the technical support center of the problem and indicating the status of the hardware subsystem and the software subsystem (see col.5, lines 6-8: "collected data is post-processed at the service center");

Wookey does not explicitly teach means for monitoring includes means for paging a user to alert the user of the problem.

Krishnamurthy teach means for monitoring includes means for paging a user to alert the user of the problem (see abstract: "The site server can deliver device information via facsimile, paging, electronic mail and management traps").

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Wookey in view of Krishnamurthy so that means for monitoring includes means for paging a user to alert the user of the problem. One would be motivated to do so because Wookey teaches, "other notifications can be sent" (see col.19, lines 3-7).

DEPENDENT:

As per **claim 2**, which depends on claim 1, Wookey further teaches wherein the packet switching network comprises the Internet and the first message comprises an email message (see col.4, lines 14-17).

As per **claim 3**, which depends on claim 1, Wookey does not explicitly teach wherein the first message comprises a fax transmission.

Krishnamurthy teach that the first message comprises a fax transmission (see abstract: "The site server can deliver device information via facsimile, paging, electronic mail and management traps").

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Wookey in view of Krishnamurthy so that the first message comprises a fax transmission. One would be motivated to do so because Wookey teaches, "other notifications can be sent" (see col.19, lines 3-7).

As per **claim 8**, which depends on claim 1, Wookey further teaches wherein the error messages identify a particular failure for the any one of the hardware and software subsystems (see col.7, liens 56-60).

As per **claim 9**, which depend on claims 1, Wookey further teaches wherein the embedded software comprises:

- a hardware health status monitor subsystem (see col.4, line 34: "hardware configuration");

- a software health status monitor subsystem (see col.4, line 34: "list of installed patches and revisions"); and

- a remote diagnostic embedded process subsystem for communicating with the hardware health status monitor subsystem and the software health status monitor subsystem, for collecting status information provided by the software health status monitor subsystem and the hardware health status monitor subsystem, and for

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detecting problems encountered by the hardware and software subsystems (see col.4, lines 31-44).

As per **claim 10**, which depends on claim 1, Wookey further teaches wherein the at least one access server is responsive to a second message generated by the technical support center for requesting further information regarding the problem (see col.5, lines 6-15).

As per **claim 13**, which depends on claim 12, Wookey further teaches wherein the network device is capable of operation without interruption (implicit: see claim 12 rejection above) while the technical support center diagnoses the problem with the one of the hardware subsystem and software subsystem (see col.5, lines 6-8).

As per **claim 19**, which depends on claims 12, Wookey further teaches wherein the embedded software comprises:

a hardware health status monitor subsystem (see col.4, line 34: "hardware configuration");

a software health status monitor subsystem (see col.4, line 34: "list of installed patches and revisions"); and

a remote diagnostic embedded process subsystem for communicating with the hardware health status monitor subsystem and the software health status monitor subsystem, for collecting status information provided by the software health status monitor subsystem and the hardware health status monitor subsystem, and for detecting problems encountered by the hardware and software subsystems (see col.4, lines 31-44).

As per **claim 20**, which depends on claim 19, Wookey further teaches the first message transmitted in response to the remote diagnostic embedded process subsystem detecting an error message from the one of the hardware subsystem and the software subsystem (see col.4, lines 31-36).

As per **claim 22**, which depends on claim 12, Wookey further teaches the network device capable of sending additional information regarding the problem to the technical support center in response to receiving a second message from the technical support center, the second message generated by the technical support center in response to the first message (see col.5, lines 6-15).

Response to Arguments

7. Applicant's arguments filed December 29, 2006 have been fully considered but they are not persuasive.

A. The applicant(s) argue with respect to claim 1, that the motivation to combine the references (Wookey and Krishnamurthy) is insufficient to maintain the rejection.

The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or **in the knowledge generally available to one of ordinary skill in the art**. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Wookey teaches that

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the communication with the system may be over the Internet (see col.4, lines 13-14).

Clearly, one of ordinary skill in the art knows that the Internet comprises plurality of system, subsystem, device, and so on, including "access servers". To assert that Wookey would not be motivated to employ access server's to his system would be to assert that Wookey would not be motivated to employ **any device except** "Master" and "Slave" devices, whatever they may be. Such assertion is improper and Wookey clearly contradicts this assertion (see col.19, lines 17-19).

B. The applicant(s) argue with respect to claims 1 and 12 that Wookey does not explicitly teach, "paging a user".

Krishnamurthy has been cited to better teach this limitation (see rejection above).

C. The applicant(s) argue with respect to claim 1 that Wookey does not explicitly teach, "where the status information includes error messages from... the second interface line.

Clearly, a second interface line is inherent in the system of Wookey since communication occurs via the Internet. Furthermore, the claims state "error messages from **any one of** the at least one hardware and software subsystems **or** the second interface line" (emphasis added). Therefore since Wookey teaches of error messages (see col.4, lines 31-36: "error messages") from hardware or software, such limitation is explicitly taught.

D. The applicant(s) argue with respect to claim 12 that Wookey does not explicitly teach detecting a problem and detecting prior to failure.

In col.5, lines 6-15, Wookey teaches that diagnostic information is collected and the collected data is processed "to recognize any future problems that may occur". Clearly, Wookey teaches the broad limitation.

E. The applicant(s) argue with respect to claim 21 that Wookey does not explicitly teach, "where the means for monitoring includes means for detecting **at least one of** a memory capacity of the network device dropping below a first threshold level, a percentage of call failures to or from the network device exceeding a second threshold, a software reload by the network device, a reduced quality of an interface on the network device, a temperature of the network device exceeding a third threshold level, and a failed interface on the network device". (emphasis added).

Wookey teaches of notification when the limit on the directory (i.e. threshold) is reached (see col.13, lines 3-7: "If the size limit on this directory is reached..."). Again, Wookey only needs to teach **at least one** limitation within this claim element.

Conclusion

8. For the reasons above, claims 1-3, 8-10, 12-13, and 19-22 have been rejected and remain pending.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

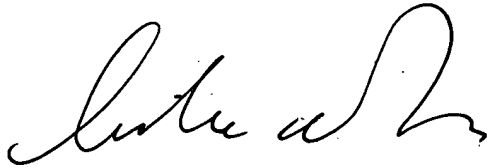
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Y. Won whose telephone number is 571-272-3993. The examiner can normally be reached on M-Th: 7AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on 571-272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael Won



February 23, 2007



SALEH NAJAR
SUPERVISORY PATENT EXAMINER